Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal

Section 1. General administrative information

Improve Water Quality Monitoring Program

Bonneville project number, if an ongoing project 9073

Business name of agency, institution or organization requesting funding
Roza-Sunnyside Board of Joint Control

Business acronym (if appropriate) RSBOJC

Proposal contact person or principal investigator:

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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Independent Consultant			Stuart McKenzie

NPPC Program Measure Number(s) which this project addresses.

NMFS Biological Opinion Number(s) which this project addresses.

Other planning document references.

Subbasin.
Lower Yakima River

Short description.
Enhance the water quality monitoring program that is being conducted by RSBOJC. By increasing the sampling locations, frequency of sampling, and analytical work, the effectiveness of the water quality improvement programs can be monitored better.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish		Construction		Watershed
*	Resident fish		O & M		Biodiversity/genetics
*	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research	*	Ecosystems
	Climate	*	Monitoring/eval.		Flow/survival
	Other	X	Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.
Water quality, turbidity, disolved materials, sampling

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Expand Sampling and Data Analysis Capabilities	a	Technician salary
2	Analyze Water Samples	a	Increase RSBOJC field analysis capabilities.
		b	Enter into agreements with qualified laboratories.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	1/1999	12/1999	90.00%
2	1/1999	12/1999	10.00%
			TOTAL 100.00%

Schedule constraints.
Enhanced water sampling and analysis program needs to be in place to monitor effectiveness of improvements that RSBOJC proposes to implement.

Completion date.
1999

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	RSBOJC Staff	$30,000
Fringe benefits		$15,000
Supplies, materials, non-expendable property		
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		
Indirect costs		
Subcontracts	Analytical Laboratory	$5,000
Other		
TOTAL		$50,000

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget				
O&M as % of total				

Section 6. Abstract

The Roza-Sunnyside Board of Joint Control (RSBOJC) currently operates a water quality monitoring program of limited scope. With the implementation of the proposed water conservation and water quality enhancement projects, it will be valuable to expand the sampling and analysis program. In order to accomplish the level of monitoring that will be needed to measure the success of the projects, more staff and increased analytical services will be needed. It is proposed that one full time technician be hired to collect samples and manage the analytical results. The RSBOJC proposes to continue to contract with qualified laboratories for analytical services. A limited amount of equipment will be purchased to allow time and environment sensitive parameters to be measured at the time of sample collection.

The water quality monitoring program would be expanded immediately and would continue indefinitely. Funding is requested for the first two years of the program. After the program is fully operational, the RSBOJC will be able cover the costs through increased assessments. The success of the program will be vital to the other conservation and water quality improvements proposed.

Section 7. Project description

a. Technical and/or scientific background.

The water quality of the Yakima River has been evaluated by many agencies. However, there is no continuing program to monitor individual waterways that carry water to the Yakima River. The expansion of the RSBOJC water quality monitoring program will provide valuable data consistently and continuing into the future. This information will be used to measure the effectiveness of improvements made within the irrigation and drainage systems.

b. Proposal objectives.

It is the objective of the water quality program to monitor the improvements in the quality of water returning to the Yakima River that will result from work within the service area. The program represents a relatively small amount of work as compared to the benefits that will be derived from the data collected. Much background data has already been collected and will serve as a benchmark from which the improvements can be compared.

c. Rationale and significance to Regional Programs.

The rationale behind the water quality monitoring program is very conventional. It will be more effective for the RSBOJC to expand and continue to operate the program than reliance upon other outside agencies. The RSBOJC has a vital financial and regulatory interest in water quality issues as they impact the waterusers. For those reasons, the RSBOJC is the logical agency to manage the water quality monitoring program.

d. Project history

The proposed enhanced water quality monitoring program is an extension of the monitoring that the RSBOJC is now doing with limited funds and staff. The expanded program will be coordinated with the work that has already been done to maximize the value of the previously collected data.

e. Methods.

Implementation of the enhanced water quality monitoring program will require hiring a trained technician, collecting more samples, and arranging for more analytical work to be done. At the beginning of the work, it will be necessary to obtain the advice from a qualified water quality authority to make recommendations regarding expansion of the program. This will ensure that samples and parameters will be accurate indicators of improvements in the waterway and Yakima River systems.

No continuing O & M budget is projected as part of the enhanced water quality monitoring program since the RSBOJC intends to fund the work into the future.

f. Facilities and equipment.

The expansion work needed to improve the water quality monitoring program is similar to the type of work regularly performed by the RSBOJC staff. A limited amount of standard test equipment and consumable supplies will be needed as the program is expanded. This equipment will be used to measure time and environmentally sensitive parameters as the samples are collected.

g. References.

Bonneville Power Administration, 1990 Columbia Basin Planning, Yakima River Subbasin Salmon and Steelhead Production Plan. September 1, 1990.

CH2M HILL, 1975. Agricultural Return Flow Management in the State of Washington. Prepared for Washington State Department of Ecology.

Department of Ecology, 1990. Statewide Water Quality Assessment 350 (B) Report, State of Washington.

USGS, 1976. Sediment Transport by Irrigation Return Flows in the Lower Yakima River Basin, Washington. Open File Report 78-946.

Section 8. Relationships to other projects

The expanded water quality monitoring program is related to efforts currently underway and proposed to improve the quality of water in the lower reaches of the Yakima River. This project very specifically links to and will measure the success of the return flow improvement program and the waterway buffer strip program.

Section 9. Key personnel

The work will be accomplished with existing RSBOJC staff and a technician hired as part of the project. The technician position is expected to be a permanent position.

Section 10. Information/technology transfer

The project is expected to serve as a demonstration of the benefits that can be achieved by monitoring the quality of water that returns to irrigation and drainage waterways by using improved irrigation techniques. This expanded monitoring program could be applied to many other irrigation and drainage projects.